Nuclear Heritage

Advanced Test Reactor (No. 3) is used to study the effects of radiation on materials and also produces rare and valuable medical and industrial isotopes. It is the largest test reactor in the world,

Nuclear Programs

INL's 52 Reactors

INL designed and constructed 52 reactors since its establishment in 1949 as the National Reactor Testing Station. For many years it was the site of the largest concentration of nuclear reactors in the world. After the first reactor at the National Reactor Testing Station (Experimental Breeder Reactor-I) went critical in 1951, scientists built and operated dozens more reactors in the next five decades. The alphabetical listing of the Idaho reactors below is from "*Proving the Principle, A History of the Idaho National Laboratory 1949-1999.*"

1. Advanced Reactivity Measurement Facility No. 1. (10/60-1974)
2. Advanced Reactivity Measurement Facility No. 2 (12/62-1968)
3. Advanced Test Reactor (7/67-present)
4. Advanced Test Reactor Critical Facility (5/64-present)
5. Argonne Fast Source Reactor (10/59-late 1970s)
6. Boiling Water Reactor Experiment No. 1 (1953-7/54)
7. Boiling Water Reactor Experiment No. 2 (10/54-3/55)
8. Boiling Water Reactor Experiment No. 3 (6/55-1956)
9. Boiling Water Reactor Experiment No. 4 (12/56-6/58)
10. Boiling Water Reactor Experiment No. 5 (2/62-9/64)
11. Cavity Reactor Critical Experiment (5/67-early 1970s)
12. Coupled Fast Reactivity Measurement Facility (1968-1991)
13. Critical Experiment Tank (1958-1962)
14. Engineering Test Reactor (9/57-12/81)

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Idaho National Laboratory

Contact

Teri Ehresman

P.O. Box 1625
Idaho Falls, ID 83415-3860
Phone – (208) 526-7785
Fax – (208) 526-2930
Teri.Ehresman@inl.gov

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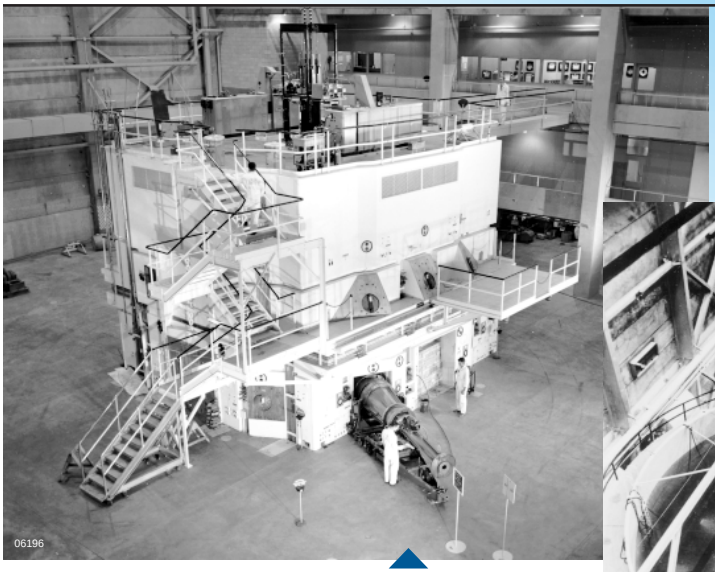
15. Engineering Test Reactor Critical Facility (5/57-1982)
16. Experimental Beryllium Oxide Reactor (never operated)
17. Experimental Breeder Reactor No. 1 (8/51-12/63)
18. Experimental Breeder Reactor No. 2 (9/61-9/94)
19. Experimental Organic Cooled Reactor (never operated)
20. Fast Spectrum Refractory Metals Reactor (3/62-1968)
21. Gas Cooled Reactor Experiment (2/60-4/61)
22. Heat Transfer Experiment No. 1 (11/55-1956)
23. Heat Transfer Experiment No. 2 (7/57-3/61)
24. Heat Transfer Experiment No. 3 (1958-12/60)
25. High Temperature Marine Propulsion Reactor (1952-1964)
26. Hot Critical Experiment (1958-3/61)
27. Large Ship Reactor A (10/58-1/94)
28. Large Ship Reactor B (7/59-1987)
29. Loss of Fluid Test Reactor (1973-7/85)
30. Materials Testing Reactor (3/52-4/70)
31. Mobile Low-Power Reactor No. 1 (3/61-5/64)
32. Natural Circulation Reactor (9/65-5/95)
33. Neutron Radiography Facility (continuing)
34. Nuclear Effects Reactor (8/68-6/70)
35. Organic Moderated Reactor Experiment (9/57-4/63)
36. Power Burst Facility (9/72-1985)
37. Reactivity Measurement Facility (2/54-4/62)
38. Shield Test Pool Facility (early 1960s)
39. Special Power Excursion Reactor Test No. I (6/55-1964)
40. Special Power Excursion Reactor Test No. II (3/60-10/64)
41. Special Power Excursion Reactor Test No. III (12/58-6/68)
42. Special Power Excursion Reactor Test No. IV (7/62-8/70)
43. Spherical Cavity Reactor Critical Experiment (11/72-1973)
44. Stationary Low-Power Reactor (8/58-1/61)
45. Submarine Thermal Reactor (3/53-10/89)
46. Systems for Nuclear Auxiliary Power (SNAP) 10A Transient No. 1 (early 1960s)
47. Systems for Nuclear Auxiliary Power (SNAP) 10A Transient No. 3 (4/64-4/64)
48. Systems for Nuclear Auxiliary Power (SNAP) 10A Transient No. 2 (1965-1/66)
49. Thermal Reactor Idaho Test Station (last operated in 1964)
50. Transient Reactor Test Facility (2/59-4/94)
51. Zero Power Physics Reactor (4/64-4/92)
52. Zero Power Reactor No. 3 (10/55-11/70)



Materials Testing Reactor (No. 30) was the second reactor built at the National Reactor Testing Station, now the INL. It was used to test the performance of materials in intense radiation environments.

Submarine Thermal Reactor (No. 45) was the prototype power plant for the nation's first nuclear submarine, the USS Nautilus.